



***TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.***



Joint Center for Robotics (JCR)  
Dr. Jim Overholt  
15 April 2008

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## Report Documentation Page

*Form Approved  
OMB No. 0704-0188*

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1. REPORT DATE <b>APR 2008</b>	2. REPORT TYPE <b>N/A</b>	3. DATES COVERED <b>-</b>		
4. TITLE AND SUBTITLE <b>Joint Center for Robotics (JCR)</b>		5a. CONTRACT NUMBER		
		5b. GRANT NUMBER		
		5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S)		5d. PROJECT NUMBER		
		5e. TASK NUMBER		
		5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>Tank Automotive Research, Development &amp; Engineering Center</b>		8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)		10. SPONSOR/MONITOR'S ACRONYM(S)		
		11. SPONSOR/MONITOR'S REPORT NUMBER(S)		
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release, distribution unlimited</b>				
13. SUPPLEMENTARY NOTES <b>Advanced Planning Briefing for Academia (APBA) Presentation, The original document contains color images.</b>				
14. ABSTRACT				
15. SUBJECT TERMS				
16. SECURITY CLASSIFICATION OF:		17. LIMITATION OF ABSTRACT <b>UU</b>	18. NUMBER OF PAGES <b>6</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>			



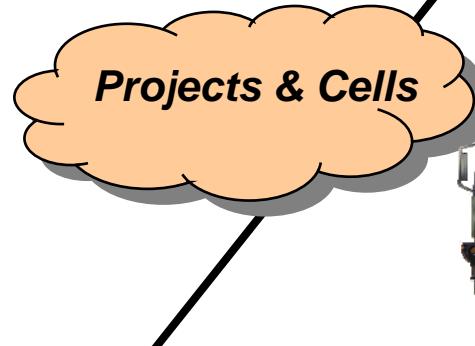
***"White Hat" Organization -  
Understand the needs of the user  
and create partnerships with  
Academia, Industry and OGA***



## JCR



## Intelligent Ground Systems



**Projects & Cells**

CAST



USMC



RVCA



**Future  
Capability  
Cells**

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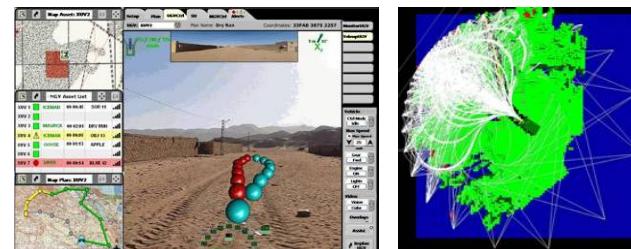
# TARDEC JCR Research Focus Areas



## Safe Operations and 360° SA



## Tactical behaviors



## Platform Mobility



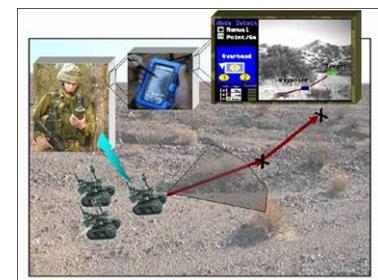
## High-Speed Tele-operation



## UGV – Soldier Interfaces



## Autonomous Control



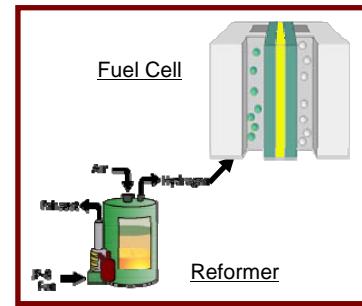
## Arm and Manipulator Articulation



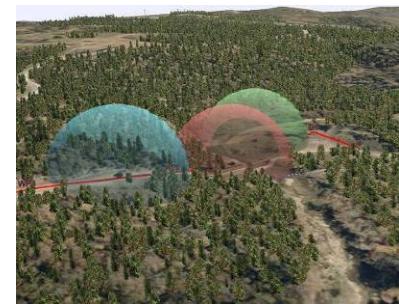
## Communications



## Power Management



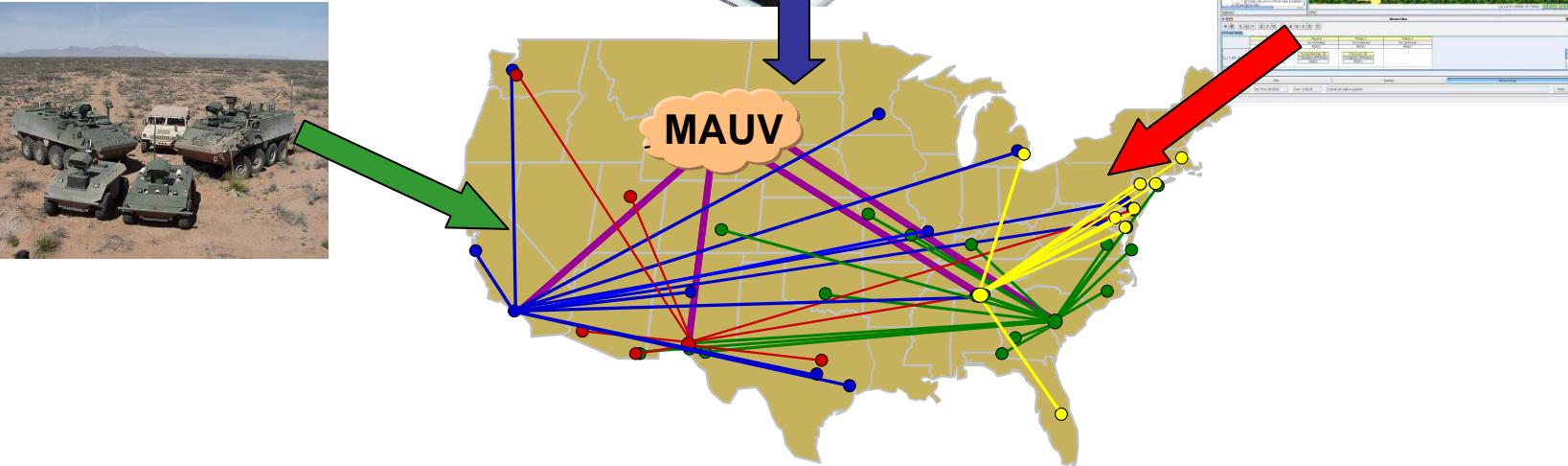
## Non-LOS SA

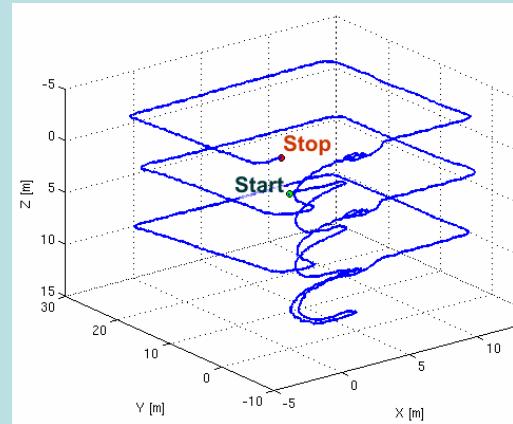
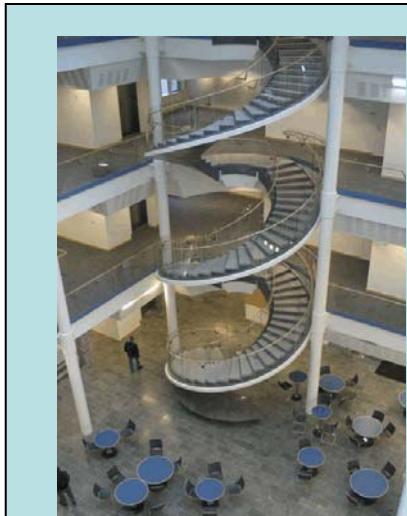


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**Live****Virtual**

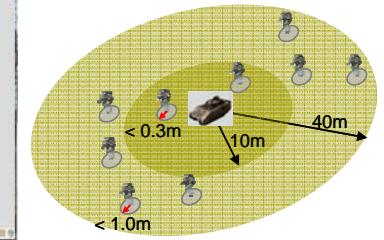
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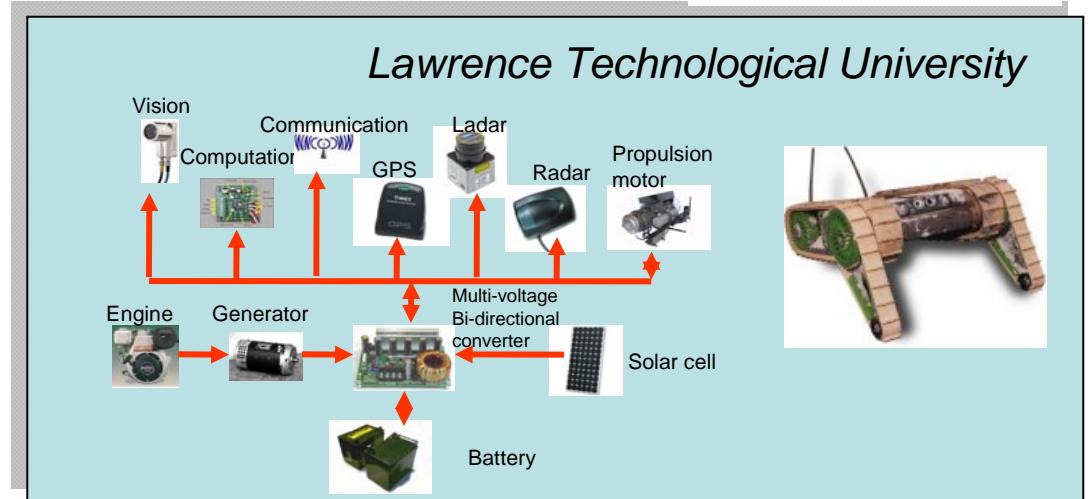
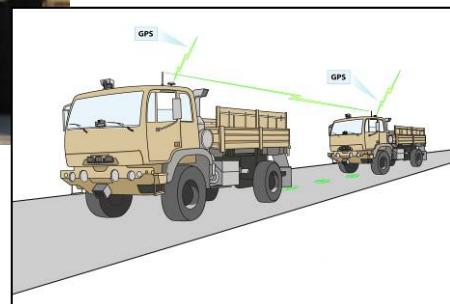


*University of Michigan*

*Oakland University*



*Auburn University*



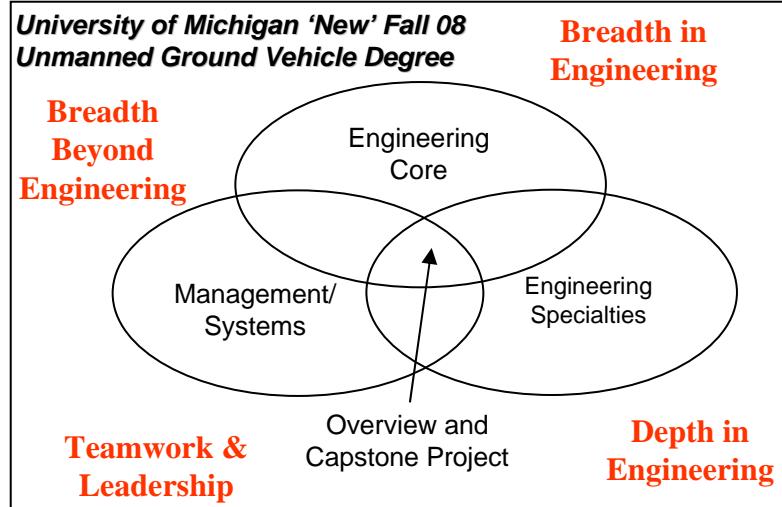
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## Relevant academic projects that align university expertise with UGV needs

12-24 month efforts emphasizing immediate needs (**short term**)

2-3 year efforts with specific drop out points of technology (**long term**)

On-site personnel helping in development of “Capability Cells”



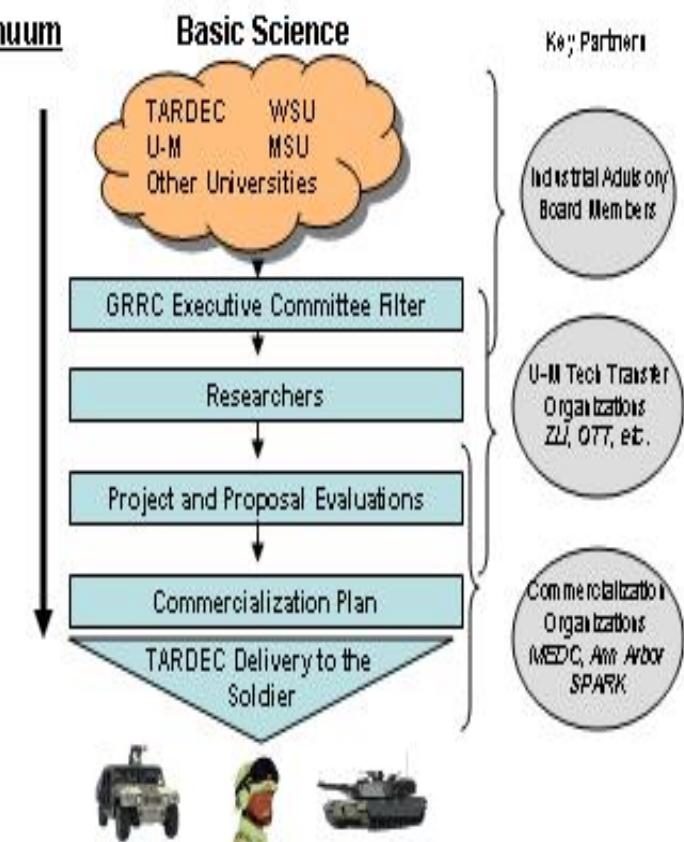
## From Research to the Soldier

The University of Michigan, other participating universities, companies, and organizations will work within a tech transfer ecosystem to focus research on technologies which demonstrate a clear path to the soldier

### The Research Continuum

Under the TARDEC umbrella, The GRRC will direct research projects and partnerships that:

1. Focus on TARDEC priorities
2. Meet stringent requirements for a focus on the soldier
3. Maintain educational research standards
4. Can deliver tangible results (prototypes, demonstration units, etc)



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